E. EXECUTIVE SUMMARY

E.1 INTRODUCTION

The California State Board of Forestry and Fire Protection (Board) is proposing to initiate the Vegetation Treatment Program (VTP). The VTP is part of a comprehensive fire prevention strategy from the Board that is implemented by the Department of Forestry and Fire Protection (CAL FIRE). The 2010 Strategic Fire Plan for California (Board, 2010) includes goals such as: identify wildland fire hazards and values at risk; promote land use planning as related to fire risk; collaborate in the development of community-based wildland fire protection plans; integrate fire and fuels management; and outreach to individuals and communities on fire prevention strategies. The VTP creates a statewide program for reducing fire risk through strategic fuels management. This Program EIR provides an environmental analysis framework for vegetation treatment projects that abate fuel hazard on SRA lands and supports federal and local non-SRA fuel reduction projects.

This document is a Program Environmental Impact Report (Program EIR) prepared according to the State CEQA Guidelines, California Code of Regulations (CCR) Section 15168. A Program EIR may be prepared on a series of actions that can be characterized as one large project and are related to, among other things, the issuance of general criteria to govern the conduct of a continuing program or individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects that can be mitigated in similar ways. Given that the Board recognizes the link between fuels management and fire protection across the state responsibility area (SRA) in other programmatic documents (Board, 2010), and has the statutory responsibility to establish policy for wildland resources in the SRA, the proposed process meets these criteria for use of a Program EIR. Furthermore, it should be recognized that a Program EIR allows for a more exhaustive consideration of effects than would be practical in separate EIRs on individual actions, and ensures consideration of cumulative impacts that might be missed on a case-by-case basis.

E.2 PURPOSE AND NEED FOR THE VTP

Population expansion into wildlands, increase fire suppression efforts, and a legacy of previous land use has led to altered fire frequencies and fuel loading from historic pre-settlement patterns, with subsequent changes in the extent and severity of wildfire across the California landscape (Syphard et al., 2007; Miller et al., 2009; Mallek et al.,

2012). Many forested portions of California suffer from a "fuel emergency," where fire exclusion has created an uninterrupted accumulation of wildland fuels (Husari et al., 2006). Furthermore, the wildland-urban interface (WUI) has been called the "defining fire management issue of the twenty-first century" (Husari et al., 2006). Adding to this, wildfire acreage in California increases concurrent with current or previous year drought (Westerling and Bryant, 2008) and with extreme weather conditions (e.g., Santa Ana winds) (Keeley et al., 2009). A combination of these manmade and natural factors has led to a situation where wildfire acreage, emergency fund fire suppression expenditures,[1] and losses of residential structures have increased dramatically in the past three decades (CAL FIRE, 2010; Stephens et al., 2009).

Climate change suggests a continuing and even accelerated risk from wildfire. Climate change scenarios suggest a trajectory of more frequent drought (Diffenbaugh et al., 2015) and higher fire severity in some portions of the state (Fried et al., 2004). Increasing temperature has implications for vegetation distribution which may further increase future fire extent and fire intensity (Lenihan et al., 2003). Some ecosystems may not be able to adapt fast enough to increasing drought stress, resulting in large scale mortality from insects, fire, or disease (Grant et al., 2013). Increased fire extent, intensity, and severity can affect aquatic habitats (Bisson et al., 2003) and/or water quality (Ice et al., 2004). These future climate scenarios combined with continuing projections of residential growth into the wildland (Mann et al., 2014) suggests that the existing wildfire-related problems are poised to become even larger in the near future.

An environmental problem of this magnitude goes beyond jurisdictional boundaries and requires a statewide strategy. The mission of the Board and CAL FIRE is to serve and safeguard the people and protect the property and resources of California (Board, 2010). An overarching goal of vegetation treatments is to alter fire behavior and reduce harmful effects to these values at risk. However, California displays astonishing diversity in plant, animals, and social systems. Without proper thought and design, the statewide planning and implementation of vegetation treatments can potentially come with a significant environmental, financial and social cost. To this end, the VTP Program EIR lays out a framework for accomplishing the goals of the Board and CAL FIRE through the strategic treatment of wildland vegetation in a manner that minimizes environmental impacts.

[1] CAL FIRE statistics indicate an exponential, more than six-fold increase in emergency fund fire suppression expenditures since 1979 after adjusting for inflation (CAL FIRE Emergency Fund Fire Suppression Expenditures, September 2014).

E.3 CONCEPTUAL BASIS OF THE VTP

CAL FIRE will implement the VTP with the intent of lowering the risk of damaging wildfire in the SRA by managing wildland fuels through the use of environmentally appropriate vegetation treatments. The VTP will only be applied to portions of the SRA that will best allow for the achievement of VTP objectives. These objectives include:

1. Modify wildland fire behavior to help reduce losses to life, property, and natural resources.
2. Increase the opportunities for altering or influencing the size, intensity, shape, and direction of wildfires within the WUI.
3. Reduce the potential size and associated suppression costs of wildland fires by altering the continuity of wildland fuels.
4. Reduce the potential for high severity fires by restoring and maintaining a range of native, fire-adapted plant communities through periodic low intensity treatments within the appropriate vegetation types.
5. Provide a consistent, accountable, and transparent process for vegetation treatment that is responsive to the objectives, priorities, and concerns of landowners, local, state, and federal governments, and other stakeholders.

The first objective is the governing goal of the Program, and recognizes the link between fuels management, fire behavior, and fire effects. Modifying fuels influences fire behavior by reducing rate of spread and decreasing fire line intensity (i.e., heat release). This increases firefighter safety and the ability of firefighters to suppress or manage a fire. California's tremendous diversity in vegetation translates into a similar diversity in fuel types, and a resultant variation in fire behavior throughout the state. Considering statewide variations in fire behavior and the need to characterize it at a workable scale for a statewide environmental analysis, the vegetation of California is condensed into three main groups based on the sufficiently distinct fire behavior each group exhibits (Bishop, 2007; Anderson, 1982). These groups can be classified as tree dominated, grass dominated, and shrub dominated vegetation formations.

Objectives two through four are related to the problem statement expressed in the previous section (E.2), and provide more specific links to values at risk and cost considerations.

To attain these objectives at the state-wide scale, the VTP organizes treatments into three general types:

- Wildland-Urban Interface (WUI): treatments will be focused in WUI-designated areas, and generally consist of fuel reduction to prevent the spread of fire

between wildlands and structures, or vice versa. Treatments will be strategically targeted in areas demonstrating high to very high Fuel Rank Potential Fire Behavior (CAL FIRE, 2010).

- Fuel Breaks: strategically placed vegetation treatments that actively support fire control activities. Treatments will focus on fuel modification in areas exhibiting Condition Class 2 and 3 (CAL FIRE, 2010).
- Ecological Restoration: projects will generally occur outside the WUI in areas that have departed from the natural fire regime as a result of fire exclusion. Ecological restoration treatments would focus on restoring ecosystem resiliency by moderating uncharacteristic wildland fuel conditions to reflect historic vegetative composition and structure. Treatments will focus on fuel modification in areas exhibiting Condition Class 2 and 3 (CAL FIRE, 2010).

By considering vegetation formations, expected fire behavior, values at risk, and treatment categories during project identification, fire behavior modification through vegetation treatments supports the Board and CAL FIRE's mission to protect life, property, and natural resources. Further discussion of the VTP's conceptual basis is contained in Chapter 2.

Objective five promotes a consistent process for identifying projects that meet the objectives of the VTP while avoiding significant impacts to the environment. It supports integrating the VTP with broader, multi-jurisdictional fuel reduction efforts. Finally, it recognizes that project planning and implementation is best served through open communication with stakeholders, and that mechanisms for reporting VTP outcomes to the public are crucial.

E.4 VEGETATION TREATMENT PROGRAM

The VTP allows for the project-scale implementation of specific vegetation treatment activities in strategic locations and at appropriate spatial scales to meet explicit project objectives for fire prevention, fire protection, and/or ecological restoration. Activities analyzed in and covered under the VTP Program EIR include: prescribed fire, manual activities (i.e., hand crews), mechanical activities, prescribed herbivory (beneficial grazing), and targeted ground application of herbicides. These activities will be used singularly or in combination depending upon the treatment type (i.e., WUI, fuel break, or ecological restoration) and environmental considerations.

Vegetation treatment activities will be implemented primarily on privately owned land within the SRA. VTP projects would only be implemented in cooperation with **voluntary and willing landowners.** For all projects implemented under the VTP, CAL FIRE would serve as the CEQA lead agency and would oversee the implementation of vegetation

treatment activities at the local CAL FIRE Unit or Contract County level. The only exception would be in circumstances where proposed VTP projects are located on lands controlled by the California Department of Parks and Recreation (State Parks). In this case, State Parks may act as the lead agency and may rely upon CAL FIRE's Program EIR in implementation of their vegetation treatment projects, if they fall within the objectives of VTP. While CAL FIRE would serve as the CEQA lead agency in most circumstances, projects can be identified, funded (at least partially), and implemented by private landowners, Fire Safe Councils, other public agencies, or non-profit groups. In these situations, the implementing entity would enter into a contract or agreement with CAL FIRE to carry out the VTP project.

The first step in the implementation process would be for each of the CAL FIRE Units or Contract Counties to update their annual Unit Fire Management Plans ("Unit Fire Plans") or Contract County Strategic Fire Plans to identify proposed vegetation treatment projects that would qualify for the VTP. By incorporating proposed VTP projects into the Unit Fire Plans or Contract County Strategic Fire Plans, the proposed VTP project would be a component of the comprehensively planned fire prevention activities within the Unit or Contract County's jurisdiction. **Projects are prioritized for implementation relative to how well they meet VTP objectives. WUI treatments with the highest likelihood of protecting values at risk will receive the highest priority. Moderate to low priority will be given to strategic fuel breaks outside the WUI that are identified within a Unit's Fire Plan or Contract County Strategic Fire Plan. Moderate to low priority will be given to ecological restoration projects.** In general, the CAL FIRE Unit/Contract County staff would coordinate with private landowners and interested agencies to identify projects best suited to meet local priorities and the VTP objectives. This is the first opportunity for local stakeholders to engage in the VTP process.

Once a Unit Fire Plan/Contract County Strategic Fire Plan has identified proposed VTP projects, the CAL FIRE Unit/Contract County staff and the project proponent would begin the project evaluation process by completing the VTP Project Scale Analysis (PSA) in Chapter 7 (i.e., CEQA environmental checklist equivalent). The purpose of the PSA would be to determine whether the environmental effects of the proposed VTP project were addressed in this Program EIR. The PSA also requires CAL FIRE to consider whether all applicable standard project requirements (SPRs) and mitigation measures identified in the Program EIR have been incorporated into the VTP project and whether additional project specific requirements (PSRs) would be necessary. SPRs are required elements for every project in the VTP and ensure that significant adverse environmental impacts are avoided. SPRs are prescriptive or procedural-based (e.g., consulting with trustee agencies on resources of concern such as endangered species) management practices that reduce or avoid potential environmental impacts. Some

procedural-based SPRs allow for project specific requirement (PSRs) tailored to project-scale site conditions. The PSA requires the applicant to contact agencies such as the California Department of Fish and Wildlife, Regional Water Quality Control Boards, and others for consultation during the project evaluation process. Fuel Breaks and Ecological Restoration projects outside the WUI will require a public forum/workshop, which provides the public a venue to voice concerns over the potential for project specific environmental impacts or identify areas of concern not considered by the project proponent. Following the forum, the project applicant will be able to adjust the project to address any concerns. This is the second opportunity for the public to be part of the VTP process.

Once a completed PSA and all supporting documentation are complete, then each project will be evaluated on three levels: local CAL FIRE Unit/Contract County, CAL FIRE Region, and Sacramento Program levels. If the project qualifies for the VTP and has been evaluated appropriately under this Program EIR, then all applicable SPRs, PSRs, and mitigation measures would be included in the project's contract requirements.

CEQA compliance and implementation would be coordinated through local CAL FIRE Units/Contract Counties. Implementation monitoring is required for all VTP-approved projects to ensure that SPRs, PSRs, and mitigation measures are adequately implemented. Follow up effectiveness monitoring and project reporting are also required elements of the VTP (see Monitoring and Communications Plan, Appendix I). More details about the process for implementing the VTP are found in Chapter 2.

E.5 GEOGRAPHIC SCOPE OF THE VTP

Nearly all VTP projects would occur on privately owned lands. Of the over 101 million acres of land in California, approximately 31 million acres fall within CAL FIRE's State Responsibility Area (SRA). The SRA is the area of the state where the State of California is financially responsible for the prevention and suppression of wildfires. SRA does not include lands within city boundaries or in federal ownership. However, not all of the SRA is appropriate for treatment given the constraints of the three general treatment types or the potential for damaging fire behavior. The total land area where the vegetation formations are appropriate for a WUI, fuel break, or ecological restoration treatment is approximately 24 million acres, or 78 percent of the SRA. Approximately 50 percent of the 25 million acres is appropriate for the WUI treatment type, with the majority in the Sierra Nevada and Klamath/North Coast bioregions, respectively. Ecological restoration accounts for approximately 36 percent of the available 25 million acres; most of the ecological restoration acreage appears in the Klamath/North Coast,

Modoc, and Sierra Nevada bioregions, respectively. Fuel breaks make up the smallest proportion of the treatments, accounting for only 14 percent of the area available for treatment. This is because fuel breaks are narrower and generally located along topographic ridgelines or roads. Information on how the treatment types are delineated is contained in Chapters 2 (2.2.3) and 4 (4.1).

Within the 24 million acres potentially subject to vegetation treatments, CAL FIRE would implement projects on approximately 60,000 acres per year with a total of 600,000 acres treated over the 10-year period. This represents a doubling of vegetation treatment activity compared to the existing Vegetation Management Program. The proposed level of activity would treat approximately 0.2 percent of the SRA annually, or two percent of the SRA over a 10-year period. At an estimated project size of 260 acres, this amounts to approximately 231 projects per year. Within a ten-year period it is estimated that there would be approximately 2,310 projects implemented.

The above annual rate of treatment and total acres treated is the basis for the analysis presented in this Program EIR. However, the actual acres treated annually in any portion of California would vary year-to-year based on several factors, such as the availability of cooperating landowners, funding, extended fire seasons, regional or statewide seasonal open burning suspensions, crew and equipment availability, unfavorable weather conditions, and access constraints. If the acreage being treated in a region exceeded 110 percent of the projected yearly average for the bioregion then further analysis would be required at the project level to ensure that significant environmental effects do not occur. This determination would be made by the Sacramento CEQA/Program Coordinator. Additional details about the geographic scope of the VTP are found in Chapters 2 and 3.

E.6 ALTERNATIVES ANALYZED

The following Program alternatives were developed for analysis:

No Project – This alternative represents the “No Project” alternative required by CEQA. If CAL FIRE took no further action, existing vegetation treatment programs, such as the Vegetation Management Program (VMP) and California Forest Improvement Program (CFIP), would continue to operate using their previously approved EIRs and departmental procedures to satisfy CEQA requirements. This alternative applies to an existing landscape that is larger than the landscape in this proposed VTP and the below Alternatives because both existing programs apply to the entire SRA (i.e., approximately 31 million acres). This Alternative treats 30,000 acres annually.

Proposed Program – The proposed Vegetation Treatment Program limits vegetation treatment efforts to areas within the SRA where assets, both urban and natural, are at greatest risk from wildland fire. Treatment activities would be limited to three general project types, which include vegetation treatments to protect the Wildland Urban Interface (WUI), fuel break installation and maintenance, and enhancing fire resiliency through ecological restoration. The available landscape to treat (approximately 24 million acres) would be smaller than the “No Project” Alternative because the scope is limited to areas that qualify for one or more of the specified project and vegetation types.

Alternative A: WUI Only – The WUI Only Alternative focuses on vegetation treatments planned specifically to protect assets within the WUI. Projects would primarily consist of community and infrastructure protection, establishing safe areas of refuge, and enhancing vegetation clearance proximate to structures. Vegetation management priorities and ecological restoration opportunities outside of the WUI would not be included under this proposed alternative. Wildland fire control success outside the WUI would rely primarily on initial attack and extended attack resources without the strategic benefit of pre-treated fuels or existing fuel breaks. The project evaluation process, analysis procedures, treatment options, and mitigations would be the same as the proposed VTP. The available landscape to treat would be approximately 12 million acres in the SRA but the projected average annual treatment acreage would be 60,000 acres.

Alternative B: WUI and Fuel Breaks – In addition to vegetation treatment efforts designed specifically to protect values within the WUI, fuel breaks would also be maintained or installed in favorable topographic locations to aid in wildland fire control efforts outside of the WUI. The project evaluation process, analysis procedures, treatment options, and mitigations would be the same as the proposed VTP. The available landscape to treat would be significantly larger than the “WUI Only” Alternative A due to the addition of fuel break-appropriate landscapes; however, it would remain less than the Proposed VTP.

Alternative C: Very High Fire Hazard Severity Zone – CAL FIRE is mandated by Public Resources Code 4201-4204 and Government Code 51175-89 to identify fire hazard severity zones statewide. These zones reflect areas of significant fire hazard based on fuels, terrain, weather, and other relevant factors. To reduce the wildland fire threat in high hazard areas, fuel treatments under Alternative C would focus specifically on areas that are classified as a "Very High Fire Hazard Severity Zone.” The project evaluation process, analysis procedures, treatment options, and mitigations would be the same as the proposed VTP. This alternative has the fewest available acres for treatment (i.e., less than 12 million acres) but is still projected to treat 60,000 acres annually.

Alternative D: Treatments that Minimize Potential Impacts to Air Quality – Alternative D has limitations on the number of acres that could be treated with prescribed fire to reduce the potential health and environmental impacts from poor air quality. In this alternative, prescribed fire use would be considerably limited; some of those acres could be treated with hand or mechanical treatments instead. Overall, the landscape available for treatment is the same as the Proposed VTP, but the projected treated acres are fewer.

The potential for each alternative to achieve the objectives of the VTP is summarized in Table ES-1 and specific details about each alternative can be found in Chapters 3 and 5.

Table ES-1 Objective achievement due to implementing the proposed Program or the Alternatives

Objective**	Summary of Objective Achievement*					
	Program	No Project	Alternative A	Alternative B	Alternative C	Alternative D
Objective 1- Modify wildland fire behavior	+	+	+	+	+	+
Objective 2 - Alter size, intensity, shape within WUI	+	+	+	+	-	+
Objective 3 - Reduce fire size and associated cost	+	-	-	+	-	-
Objective 4 - Restore range of fire-adapted ecosystems	+	+	-	-	-	-
Objective 5 - Provide consistent, transparent process	+	-	+	+	+	+

* Key to ratings: "+" meets goal, "-" does not meet goal
** Objectives abbreviated from Chapter 2.1

E.7 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The Program EIR evaluates the full range of potential environmental impacts identified in Appendix G of the CEQA Guidelines. These impacts are discussed throughout Chapter 4: Environmental Setting, Environmental Impacts, and Mitigation Measures. If a VTP project could not maintain project impacts at less than significant levels through the application of SPRs, PSRs, and mitigation measures, it would be disqualified from

approval under the proposed Program and would have to use an alternative CEQA process instead (e.g., supplemental EIR). This approach to limiting environmental impacts would preclude the creation of new significant impacts or considerable contributions to existing environmental problems. The determination of environmental impacts assumes projects implement all SPRs and any identified PSRs properly. There are 87 SPRs identified within the Program EIR. These are found in four locations in the document: Chapter 2.5.1, Chapter 4, Chapter 7, and Appendix I.

Table ES-2 Comparison of the environmental impacts to resources implementing the proposed Program or the Alternatives

Resource of Concern	Significant and Unavoidable	Less than Significant with Mitigation Measures	Less than Significant with SPRs Implemented	Less Than Significant
Biological Resources			X	
Geology, Hydrology, and Soils			X	
Hazardous Materials			X	
Water Quality			X	
Archeological, Cultural & Historic Resources			X	
Noise			X	
Recreation			X	
Utilities and Energy				X
Transportation and Traffic				X
Population, Employment, Housing, & Socio-Economic Well-Being				X
Air Quality		X		
Aesthetics and Visual Resources			X	
Climate Change			X	

Of special note, impacts to chaparral plant communities are avoided by implementing the following requirements:

BIO-5 - Vegetation treatment projects that are not deemed necessary to protect critical infrastructure or forest health in San Diego, Imperial, Riverside, Orange, Los Angeles, Ventura, Santa Barbara, Kern, and San Bernardino counties shall:

- Be designed to prevent vegetation type conversion.
- Not take place in vegetation that has not reached the age of median fire return intervals.

- Not re-enter treatment areas for maintenance in an interval shorter than the median fire return interval outside of the wildland urban interface and excluding fuel break maintenance.
- Not take place in old-growth chaparral without consultation regarding the potential for significant impacts with the CDFW and the CNPS.
- Take into account the local aesthetics, wildlife, and recreation of the shrub-dominated subtype during the planning and implementation of the project.

One mitigation measure exists for air quality (Mitigation Measure AIR-1), and limits the number of prescribed burning projects in the San Joaquin Valley Unified Air Quality Management District (see Chapter 4.12).

E.8 CUMULATIVE EFFECTS SUMMARY

The potential environmental impacts related to projects that qualify for approval under the VTP would be less than significant through the implementation of SPRs and any identified PSRs. Where potentially significant impacts could not be entirely avoided, mitigation measures would be required to compensate for resource effects (see Chapter 4.12, Air Quality). If a VTP project could not maintain project impacts and contributions to cumulative impacts at less than significant levels through the application of SPRs, PSRs, and mitigation measures, it would be disqualified from approval under the proposed Program and would have to use an alternative CEQA process instead (e.g., supplemental EIR). This approach to limiting environmental impacts would preclude the creation of new significant cumulative impacts or considerable contributions to existing cumulative environmental problems. Please see Chapter 5 for a more detailed discussion of cumulative impact issues by environmental resources topic.

E.9 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

No reasonably foreseeable significant irreversible environmental changes have been identified that would result from implementation of the VTP or the Alternatives to the VTP. The VTP is projected to treat only 0.2 percent of the SRA per year, or 2 percent of the SRA within a 10-year planning horizon. This infrequency of entry along with a robust suite of SPRs, PSRs, and mitigation measures would make irreversible damage from environmental impacts unlikely.

E.10 AREAS OF KNOWN CONTROVERSY

Section 15123(b) of the State CEQA Guidelines requires that an EIR identify areas of controversy known to the lead agency, including issues raised by agencies and the public. The following are areas of controversy known to CAL FIRE:

- Impacts to air quality
- Impacts to chaparral communities
- Impacts to water quality, biological resources, and human health
- Impacts to geological features and soils erosion
- Impacts from herbicide applications
- Spread of invasive plants
- Potential for loss of life, property, and resource values due to escaped prescribed fire
- Increasing the amount of treated acres to help mitigate climate change
- Meeting the diverse and complex needs of the state
- Impacts to cultural resources.